

REMARKS

Applicants reply to the Office Action dated September 21, 2009 within the three month statutory period for reply. Claims 17-23 were pending in the application and the Examiner rejects claims 17-23. Support for the amendments may be found in the originally-filed specification, claims, and figures. No new matter has been introduced by these amendments. Reconsideration of this application is respectfully requested.

The Examiner rejects claims 17-23 under 35 USC 103(a) as being obvious over Cheung, US Patent No. 6,524,872 ("Cheung"), in view of Mazur, US Patent No. 3,697,873 ("Mazur"), and further in view of Alexander, US Patent No. 4,090,132 ("Alexander"). Applicants respectfully disagree; however, Applicants amend certain claims to expedite prosecution and to clarify the patentable subject matter.

Applicants assert that the claimed invention is directed to managing the lifecycle of a television device. In particular, the claimed invention provides a television having a current-ON timer which records information indicating the total time the television device has been in use. Applicants amend the claims to further clarify that the claim element does not estimate "lifetimes" in semiconductor devices, as asserted by the Examiner based on the references cited. Rather, the element is similarly amended to include "estimating a remaining life of a television" in claims 17, 22 and 23. Support for this amendment can be found on, for example, page 19, lines 14-17 of the original specification.

In particular, Applicants assert that the cited references do not even pertain to the same problem to be solved as the claimed invention. For example, as clarified in claim 17, the claimed invention relates to the estimating of the remaining life of the television, which Cheung, Mazur and Alexander do not disclose or contemplate.

More specifically, Cheung relates to the measurement and monitoring of plasma-damage (i.e., not remaining life) during manufacturing. In particular, plasma-damage is a concern during the fabrication of integrated circuit devices (column 1, lines 6-36 of Cheung), and not the remaining life of an integrated circuit device (i.e., after the device has already been used). As described by the Examiner, Cheung only provides a method for testing wafers for the presence of plasma damage during fabrication, for example, after post metallization anneal processing (column 4, line 66 to column 5, line 9 of Cheung). In particular, the invention of Cheung uses

hot-carrier stress method and measures the change in transconductance as a function of time for a given device over a short period of time (Abstract of Cheung). However, Applicants assert that Cheung fails to disclose or contemplate the determination of a remaining life of an integrated circuit. Cheung also does not disclose a method that is applicable for “estimating a remaining life of the television”. In particular, Cheung does not disclose evaluating the total current-ON time of a completed device in use by consumers. **In fact, Cheung teaches away from the claimed invention** in that it is not possible for Cheung to evaluate the total current-ON time as the device being tested in Cheung has not been used. Consequently, Cheung does not even pertain to the same problem as the claimed invention, and thus, cannot teach or suggest an estimating method using “information indicating whether the total current-ON time of the television has exceeded the predetermined lifetime of the transistor” as similarly recited in amended claim 17, 22 and 23.

Similarly, Mazur and Alexander do not pertain to the problem of the claimed invention, but rather only relate to the determination of excess carrier lifetime in semiconductor devices (Title and Abstract of Mazur and Alexander). Applicants assert that excess carrier lifetime is not the same as ‘remaining life’ of the television, as it refers to the recombination time (and not remaining life) of excess carriers (and not television) in the high resistivity regions of semiconductor devices (column 1, lines 12-15 of Alexander). Rather, ‘remaining life’ of the television refers to the remaining time that the television can operate properly. In particular, Mazur and Alexander provide methods for determining excess carrier lifetime of semiconductor devices by measuring the slope of the open-circuit voltage decay curve across a semiconductor device following the termination of a current pulse, which is displayed on an oscilloscope screen. Applicants assert that no way exists for using the ‘excess carrier lifetime’ to determine the ‘remaining life’ of the television.

Furthermore, the CRT tube (functioning as an oscilloscope screen) used in Mazur is only used to show the abovementioned voltage decay curve for determination of the ‘excess carrier lifetime’ of the semiconductor device being tested (not the CRT tube) (column 5, lines 11-29 of Mazur). Therefore, the CRT tube disclosed in Mazur does not correspond to “the television” of claim 17 in any way. The ‘remaining life of the television’ is not even mentioned in Mazur. Therefore, the inventions of Mazur and Alexander determine excess carrier lifetime in

semiconductor devices, but neither of Mazur and Alexander disclose or contemplate "estimating a remaining life of the television," as similarly recited in amended claim 17, 22 and 23.

Further, Mazur and Alexander also do not disclose a method that is applicable for "estimating a remaining life of the television". In particular, Mazur and Alexander does not disclose evaluating the total current-ON time of a completed device in use by consumers. Consequently, Applicants assert that Mazur and Alexander also cannot disclose or contemplate an estimating method using "information indicating whether the total current-ON time of the television has exceeded the predetermined lifetime of the transistor," as similarly recited in amended claim 17, 22 and 23. In addition, Applicants assert that the 'excess carrier lifetime' cannot be considered to correspond to the 'total current-ON time' either since it does not relate to the amount of time that the device has been turned on. Advantageously, the claimed invention enables reliable estimation of a remaining life of a television. This information is useful in managing the lifecycle of a television as a consumer commodity.

Claims 18-21 variously depend from independent claim 17, so Applicants assert that claims 18-21 are differentiated from the cited references for the same reasons as set forth above, in addition to their own respective features.

In view of the above remarks and amendments, Applicants respectfully submit that all pending claims properly set forth that which Applicants regard as their invention and are allowable over the cited references. Accordingly, Applicants respectfully request allowance of the pending claims. The Examiner is invited to telephone the undersigned at the Examiner's convenience, if that would help further prosecution of the subject application. The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. **19-2814**.

Respectfully submitted,

By: 

Howard I. Sobelman
Reg. No. 39,038

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SNELL & WILMER L.L.P.

400 E. Van Buren
One Arizona Center
Phoenix, Arizona 85004
Phone: 602-382-6228 / Fax: 602-382-6070
Email: hsobelman@swlaw.com